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ABSTRACT

This study sought to identify the degree of social mobility across generations and to develop causal models of the sponsors of this mobility. The sample for the study consisted of 7,835 young adult males from the Fourth Follow-Up survey of the National Longitudinal Study. The study analyzed the relationship between mobility and such antecedents as subjects' years of education, fathers' years of education, and class rank. It also analyzed the impact of fathers holding low-status or high-status jobs. An index of mobility was developed by computing the difference between the status rankings of fathers and sons. Analyses indicated considerable mobility in the sample. It is concluded that upward mobility is indeed present in modern American society. However, while there is mobility, sons in the lower reaches will not rise too far and sons in the upper reaches will not fall too far. (JDD)

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Social Mobility in a National Sample of Young Adult Males

How Young People Get Ahead in America

Marian E. Brazziel, Ph.D.

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MAKING IT: CAUSAL MODELS OF SOCIAL MOBILITY IN A NATIONAL SAMPLE OF YOUNG ADULT MALES

Social mobility across generations continues to be a process about which more can be known. The extent of mobility in present-day American society is often the subject of debate. Sponsors of mobility - or lack of it - are not clearly defined. Lack of truly national samples has precluded definitive research in this area.

The purpose of this study was to identify the degree of social mobility across generations in a national sample of young adult males and to develop causal models of the sponsors of this mobility. A general model was developed for the total sample in the study. The model was then applied to sub-samples of subjects from families headed by fathers with low status jobs, professional workers from families headed by fathers with low status jobs and subjects working in low status jobs who came from families headed by fathers with high status jobs. The modeling thus addressed questions of sponsors of general mobility, upward mobility, long distance upward mobility and long distance downward mobility. Changes which occurred in the model when applied across the spectrum of mobility were observed and documented.

The potential significance of the study is threefold. It offers an analysis of mobility in present-day society with a truly national sample. It offers tests of sponsors of

mobility for which data has here-to-fore been unavailable. Educational plans and experiences are cases in point along with uniform test results and occupational aspirations. Finally, it may offer insights to those would improve the opportunity structure in America for those in the lower strata of society.

Research Design

The study was an ex post facto longitudinal inquiry (Kerlinger, 1973). Recursive modeling employing path analysis was the principal statistical application. The research questions are listed below:

1. Is there evidence of significant social mobility across generations in a national sample of young adult males?

2. Can selected distal antecedent variables serve as direct sponsors of social mobility in causal models utilizing a national sample of young adult males?

3. Can selected distal antecedent variables serve as indirect sponsors of social mobility when moderated through years of education as a primary antecedent?

    a. What is the relationship between mobility in the sample and the following antecedents: years of education of the subjects, bachelor's degree, certificate/license, years of education of the subjects' fathers, family income, occupations desired by the subjects, importance of success, plans for immediate entry into postsecondary education, test scores and class rank.

    b. What other configurations of distal antecedents are apparent in the model?

4. What changes occur in the model when it is tested with a sub-sample of subjects drawn from families where fathers held low-status jobs?

5. What changes occur in the model when it is tested with a sub-sample of subjects holding professional jobs who were raised in families of fathers with low-status jobs?

6. What changes occur in the model when it is tested with a sub-sample with semi-skilled and unskilled jobs who were raised in families headed by fathers with high-status jobs?

Sample

The sample for the study consisted of 7835 young adult males from the Fourth Follow-Up survey of the National Longitudinal Study. The sample included all males who were working full-time at civilian jobs in 1979 and who were living in families headed by fathers in 1972, the year of the collection of baseline data.

The National Longitudinal Study is a longitudinal study of young adults designed to ascertain the effects of schooling and other life chances. It is sponsored by the National Center for Education Statistics. Baseline data were collected in the senior year of a national sample of high school students in 1972. Follow-up surveys were completed in 1973, 1974, 1976 and 1979. The 1979 survey is entitled the Fourth Follow-Up and it constituted the source of data for this study. The data for the survey were collected in October of 1979 and released for use by researchers in March of 1981.

Data accessed for the sample in this study included the cognitive and demographic data described above for tests of distal and antecedent variables along with a Duncan Scale ranking of the status of the occupations of both the subjects

and their fathers. The Duncan Scale is a status ranking of all occupations listed by the U.S. Census Bureau and is the most commonly used instrument in studies of intergenerational mobility (Jencks, 1972, p. 178). By comparing the status rankings of fathers and sons, the degree of mobility can be ascertained. An index of mobility was developed for this sample by computing the difference between the rankings of fathers and sons. The index was labeled the Social Mobility Index (SMI) and was used as the outcome variable in the modeling.

Procedures

The sample was drawn from the Fourth Follow-Up tapes and prepared for the antecedent regression analyses necessary to generate path coefficients. The SMI for each subject was cast as the outcome variable for these analyses.

SAT and ACT scores were converted to z scores for purposes of comparability and their predictive power was then compared to a reasoning battery of tests administered to the sample in base year data collection. Test runs indicated that the vocabulary and mathematics tests of the reasoning battery predicted as well as the quantitative and verbal SAT/ACT z scores. The latter were thus dropped from the analyses in favor of the reasoning battery. The value of this approach lay in the increase in subjects with test data. While only college bound subjects took SAT/ACT batteries, all subjects took the reasoning batteries.

Occupation desired by the subject was prepared for analysis by assigning a Duncan Scale index to the occupation aspired to by the subject. Plans for immediate entry to postsecondary education were coded dichotomously for the analyses and linear coding from raw data was utilized for the remaining antecedent variables.

A criteria of .03 was set as a magnitude for selection of paths for the model. Standardized beta coefficients falling below this were deleted from saturated models. Also eliminated were coefficients which failed to meet .05 levels of significance on F tests.

Principal Findings

Analyses on the degree of mobility indicated considerable mobility in the sample. Fully 50 percent of the sons exceeded the Duncan SEI of their fathers, six percent matched it and 44 percent fell below it. It was estimated that 26 year old men (the mean age of the subjects) can become situated in 982 of the 984 occupations on the Duncan Scale. The exceptions were judges and physicians and one subject in this sample had achieved a status in the latter.

The net of the mobility was in the direction of upward mobility. The SMI for the sample was 1.35 (sons' SEI = 42.56, fathers' SEI = 41.03). This was significant at the .05 level when analysis of variance was applied to the data.

Mobility for the sons of fathers with low status jobs was characterized by short range configurations although ten percent of the group had become situated in occupations one

standard deviation above the mean SEI of the sample (42.56). This bears out the contentions of concerned analysts (Bowles, 1976; Jencks, 1972; and DeLone, 1978) that opportunity structures for those in the lower strata of society can be improved. The sons in this sub-sample exceeded the mean SEI of their fathers (12.47) by 23 points but their resulting SEI (35.43) was fully seven points below the mean of the sample. On the other hand, sons of fathers in the high strata (one standard deviation above the mean) recorded an SEI which was six points above the mean of the sample and 17 percent had matched or exceeded the exceedingly high mean of the fathers in this group (77.51). Further, a sizable group was found in the lowest sub-sample (subjects working at unskilled jobs) who had bachelor's degrees and, presumably, the option to move into higher jobs at their leisure. Twenty-eight percent of the subjects in the latter group (with high status fathers) were working at jobs rated one standard deviation above the mean of the total sample while about the same proportion of the former were working at jobs one standard deviation below the mean of the total sample. The analysts listed above contend that while there is mobility in our society, sons in the lower reaches will not rise too far and sons in the upper reaches will not fall too far. These contentions seem to be borne out by these data.

On the other hand, indicators of variation in a very large sample (7835 subjects) suggests that upward mobility is indeed present in modern American society. Subsequent

analyses with sub-samples made this fact clear. The point to be made here is that the opportunity structure could be improved.

When mobility was examined for the sub-sample from families headed by fathers with low-status jobs, the SMI was 22.79, fully 17 times that of the total sample but the rating (35) was only a third or so of the way from the bottom of the 96 point scale - short distance mobility. To be sure, a small number of subjects were found in occupations at the upper end of the scale and some of the mobility here was spectacular. This group included a physician, six lawyers and seven engineers. A sizable group was working in high level jobs in the sports industry either as professional athletes or as managerial personnel.

The theory of recirculation of the elite was also borne out to some extent when mobility analyses were developed for sub-samples involving subjects in professional jobs from families headed by fathers with low SEI occupations. The results of this analysis (high status subjects - low status fathers) revealed a small but encouraging number of subjects in this category (179). Inspection of the frequency distributions revealed patterns similar to those discussed above with a clustering of subjects at the lower end of the professional scale: nurses, accountants, teachers. Again, mobility is present but opportunity structures can be improved. The long distance mobility described here involved less than three percent of the entire sample and only 10.62

percent of the 1684 subjects from families headed by fathers in low status jobs. This is not very much.

Some recirculation of the elite through downward mobility was also apparent in the sample. A small number of subjects (223) from families headed by fathers with high status jobs were working in unskilled or low-level service occupations. Further analysis of this sub-sample suggested that some of the subjects may have taken such jobs on a temporary basis. Fully 20 percent of the group held college degrees and data on plans for college entry indicated that participation in college study was substantial. On the other hand, the percentage of degree holders was below that of degree holders in that strata of society. Nearly 80 percent of students from wealthy families attend college in America and some 65 percent or more receive degrees. Said differently, roughly 40-50 percent of these students hold degrees compared to only 20 percent of those in this sample. In addition to temporary status in menial jobs, one might thus add neglect of education for some, perhaps, along with illness, drug abuse, family tragedy. And, for some a conscious opting for a simple, less competitive life.

A general path model was developed to identify <u>direct</u> sponsors of mobility for the total sample. Seven variables could serve as direct sponsors in such a model. These were years of education, father's education, family income, bachelor's degrees, certificates/licenses, class rank an' importance of success in work. The model accounted for 22.4 percent of the variance in the sample.

Significantly, education and credentials were heavily represented in the model. Indicators of drive and ability (class rank) and pride and aspiration (importance of success in work) were important additions to the model.

Indirect sponsors of mobility became apparent when years of education was cast as a primal, moderating antecedent. These sponsors were entrance plans, occupation wanted, mathematics and vocabulary test scores and four of the direct sponsors: bachelor's degrees, class rank, certificate/license and father's education. Predictably, those antecedents which would seem to offer encouragement for extended study on the part of students had substantial zero order correlation coefficients. These were class rank, test scores and father's education.

When the general model was applied to the sub-sample of subjects headed by fathers with low-status jobs, some changes occurred in both the list and the order of sponsors and more variance was accounted for (33 percent). Education became more important but class rank, test scores and father's education became less important. Predictably, the latter had a negative correlation. Certificates/licenses became more important and years of education became more important. The former variable can be related to the large number of young men who moved up from the unskilled and low service jobs of their fathers to become craftsmen, foremen and technical workers. Certificates, licenses, journeyman cards and other work credentials are important here.

When the general model was applied to the sub-sample of professional workers from families headed by fathers in low status jobs, years of education stood alone as a single variable direct sponsor. More variance was predicted by this model than was predicted by the general model (26 to 23 percent). Education is almost the only way to professional status and its importance was predictable. The lack of direct sponsorship of other variables is remarkable, however. It must be noted, on the other hand, that many affected mobility strongly as distal antecedents. The picture which emerged here was one of bright, hardworking youth (class rank) with high aspirations (occupation wanted) who charged ahead (entrance plans) and took advantage of as many opportunities as they could (high SMI). When the general model was applied to the sub-sample of low status workers from high status families, only father's education and years of education emerged as direct sponsors. Years of education was used as a direct sponsor for purposes of identifying distal antecedents although the F for this variable did not meet the .05 criteria for inclusion. Beta weight for the variable was high, however.

It was concluded that the general model was not entirely adequate for application to this sub-sample and that only further study could give an idea of the true nature of subjects who have experienced such long distance, downward mobility.

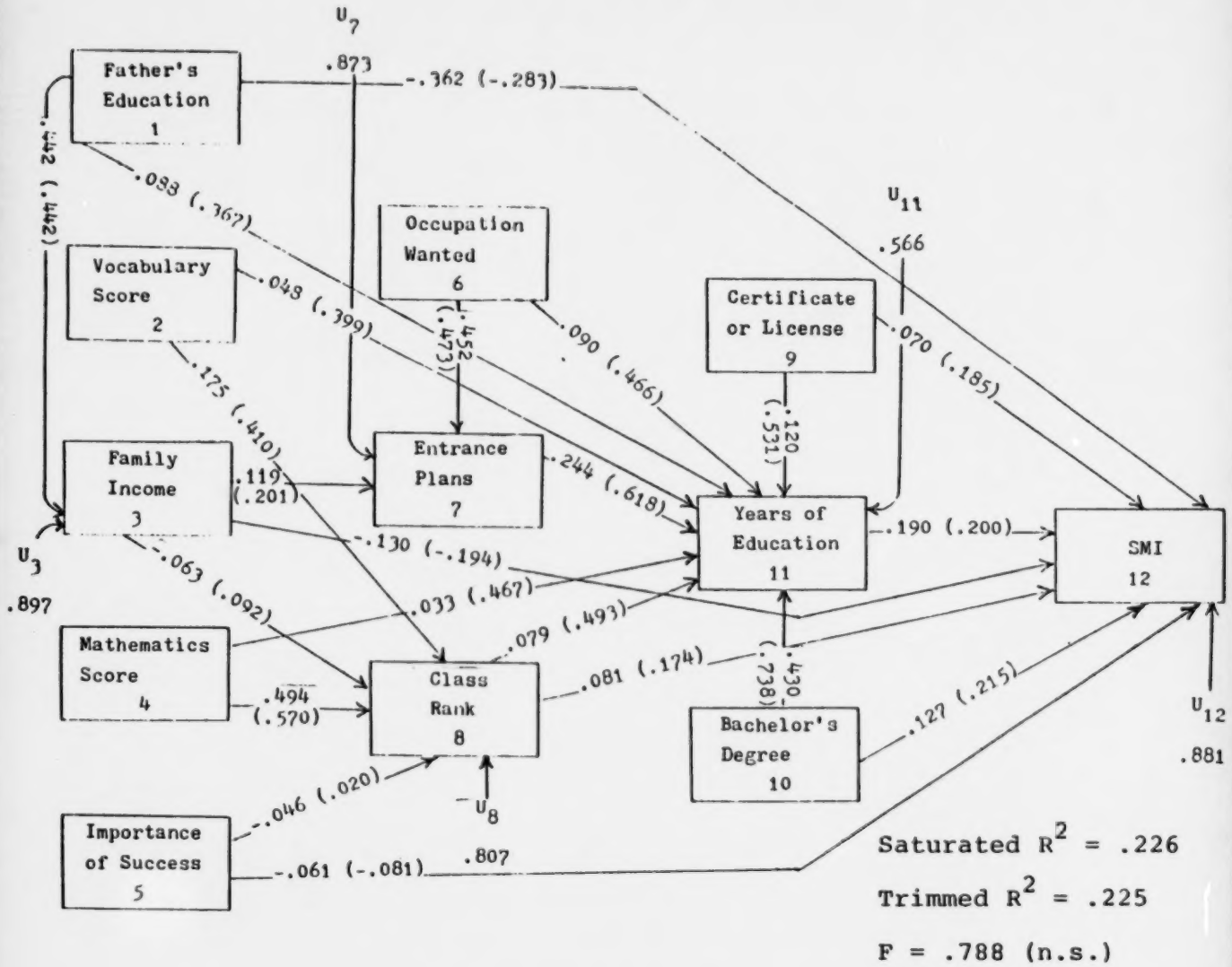

Figure 2. General Mobility Path Model: Trimmed

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Dr. Brazziel has served as an NASA statistician and as a U.S. patent officer. She has taught statistics at the University of Connecticut. She is the author of The College Freshman Adjustment Scales and co-author of Higher Education for All Americans. She is also co-author of a number of NASA research reports which detail research on airworthiness phenomena.

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